

CLAIMS

1. A burn-off resin model used in a lost wax process characterized in:

5 that a liquid resin compound is formed with 1 to 30 wt.% of plasticizer (D) and 1 to 20wt.% of a wax component (E) blended a said double fluid reactive setting liquid urethane resin (C) constituted of a multifunctional polyol component (A) and a multifunctional polyisocyanate component (B); and

10 that said liquid resin compound is set within a working life of 5 minutes or less to form said resin model.

2. A burn-off resin model according to claim 1 characterized in:

15 that said multifunctional polyol component (A) in said double fluid reactive setting liquid urethane resin has an average functional radix of 2.8 or larger and said multifunctional polyisocyanate component (B) in said double fluid reactive setting liquid urethane resin has an average functional radix of 2.0 or larger with an NCO/OH ratio achieving a value within a range of 0.7 to 1.0.

20

3. A burn-off resin model according to claim 1 or claim 2 characterized in:

25 that said plasticizer (D) is micro-dispersed through phase separation when said double fluid reactive setting liquid urethane resin (C) undergoes the process of reactive setting.

4. A burn-off resin model according to any of claims 1 through 3 characterized in:

that said double fluid reactive setting liquid urethane resin (C) contains 2 to 25 wt.% of polyether chains with a chemical structure indicated in the chemical structural formula below.



10 5. A burn-off resin model according to any of claims 1 through 4 characterized in:

that said wax component (E) is provided in the form of grains, flakes or lumps, each formed in a size that allows it to be contained in an approximate volume of 1 cm³.

15

6. A burn-off resin model according to any of claims 1 through 5 characterized in:

that said double fluid reactive setting liquid urethane resin (C) is blended with water by adding 0.01 to 1.0 wt.% of water (F) into said double fluid reactive setting liquid urethane resin (C) to induce aqueous foaming.

20

7. A burn-off resin model according to any of claims 1 through 5 characterized in:

that an organic solvent (G) is blended into said double fluid reactive setting liquid urethane resin (C) so as to achieve an organic solvent content of 10 to 25 wt.%.

- 5 8. A burn-off resin model according to any of claims 1 through 6 characterized in:

that fine particles (H) of a natural high molecular waste are added into said double fluid reactive setting liquid urethane resin (C) so as to achieve a waste particle content of 1 to 10%.

10

9. A high precision casting method achieved by using a burn-off resin model according to any of claims 1 through 8.